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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/666,646

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Ganesh Basawapatna

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INTELLECTUAL PROPERTY DEPARTMENT

SANTA MONICA, CA 90404

EXAMINER

SCHNURR, JOHN R

ART UNIT

PAPER NUMBER

2623

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/666,646

Applicant(s)

BASAWAPATNA ET AL.

Examiner

John R. Schnurr

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :07/07/2004, 05/19/2005, 07/26/2007 and 12/20/2007.

DETAILED ACTION

1. This Office Action is in response to Amendment After Non-Final Rejection filed 11/12/2007. Claims 30-57 are pending and have been examined.
2. The information disclosure statements (IDS) submitted on 07/07/2004, 05/19/2005, 07/26/2007 and 12/20/2007 were considered by the examiner.

Response to Arguments

3. Applicant's arguments with respect to claims 30-57 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 55 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claim describes a processor being in communication with the headend and the local service modules, which is able to control the operation of the video sources. No processor described in the specification has the ability to control the operation of the video sources. For the purposes of examination the Examiner assumed the claim was intended to describe a processor in

communication with the headend and the local service modules, which is able to control the operation of the receivers.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims **46, 49-55 and 57** are rejected under 35 U.S.C. 102(b) as being anticipated by **Utsumi et al. (US Patent 5,729,281)**, herein Utsumi.

Consider **claim 46**, Utsumi clearly teaches a local service module adapted to receive one or more multiplexed channel signals comprising a plurality of video channels and to transmit a multiplexed signal, **(Fig. 2 column 7 lines 18-32)** the service module comprising:

a microprocessor adapted to receive a channel selection request for one of the plurality of video channels; **(Fig. 3: Receiving portion 15 receives channel change requests, column 7 line 62 to column 8 line 2)**

a plurality of converters adapted to convert to a predetermined frequency at least one of the plurality of video channels corresponding to the channel selection request; **(Fig. 3: Modulating portions 13₁ to 13_N convert the requested video channel to a predetermined frequency, column 8 lines 20-37.)**

a combiner adapted to combine the converted one of the plurality of video channels with at least one other video channel into the multiplexed signal. **(Fig. 3: Outputs from the modulating portions 13_x are multiplexed and transmitted via transmission line 20, column 8 lines 37-41.)**

Consider **claim 49**, Utsumi clearly teaches at least one of the plurality of converters is a programmable converter. **(Fig. 3 modulating portions 13₁ to 13_N, column 7 lines 45-51 and column 8 lines 29-37 Utsumi)**

Consider **claim 50**, Utsumi clearly teaches at least one of the plurality of converters is a frequency converter. **(Modulating portions 13₁ to 13_N convert the frequency of the signal, column 8 lines 34-37 Utsumi.)**

Consider **claim 51**, Utsumi clearly teaches the converted one of the plurality of video channels is provided to at least one bandpass filter. **(Receiving device 31 filters the intended signal, column 8 lines 41-43.)**

Consider **claim 52**, Utsumi clearly teaches a power divider adapted to divide the multiplexed channel signal into a plurality of identical multiplexed channel signals, one for each of the plurality of converters. **(Fig. 11: The multiplexed signal is divided into multiple multiplexed signals that are transmitted to each of the selective distribution stations.)**

Consider **claim 53**, Utsumi clearly teaches a cable distribution system, comprising:

a plurality of local service modules to receive one or more multiplexed channel signals comprised of one or more video channels, **(Fig. 2: Selective distribution station 10 receives a plurality of multiplexed video channels from center station 1, column 7 lines 26-29.)**
a selected one or more of the video channels being provided to one or more of a plurality of converters in one of the local service modules for conversion into at least one predetermined frequency for combination with another video channel into a multiplexed signal; **(Fig. 3: Modulating portion 13₁ converts the requested video channel to a predetermined frequency, column 8 lines 20-37.)**

a plurality of interface units associated with the plurality of local service modules, each of the plurality of interface units to receive the multiplexed signal and filtering one of the one or more video channels from the multiplexed signal for a video displaying apparatus. **(The subscriber receiving device 31, receives the multiplexed signal and filters out the frequency, f_1 , for which it is assigned, column 8 lines 41-43 Utsumi.)**

Consider **claim 54**, Utsumi clearly teaches a headend to receive signals from a plurality of video sources, to multiplex the signals into the one or more multiplexed channels signals, and to transmit the one or more multiplexed channel signals to one or more of the plurality of local service modules. **(Fig. 2: Selective distribution station 10 receives a plurality of multiplexed video channels from center station 1, column 7 lines 26-29.)**

Consider **claim 55**, Utsumi clearly teaches a processor in communication with the headend and the plurality of local service modules, the processor being functional to control the operation of the video sources. **(Fig. 3 Controlling portion 17, column 7 line 65 to column 8 line 2)**

Consider **claim 57**, Utsumi clearly teaches wherein the headend is a regional headend. **(Fig. 11)**

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims **30-35, 38, 39 and 41-44** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Utsumi et al. (US Patent 5,729,281)** in view of **Mao (US Patent 6,728,965)**.

Consider **claim 30**, Utsumi clearly teaches a method comprising:

receiving, at a local service module, one or more multiplexed channel signals from a headend, the one or more multiplexed channel signals comprising a plurality of video channels; **(Fig. 2: Selective distribution station 10 receives a plurality of multiplexed video channels from center station 1, column 7 lines 26-29.)**

receiving a channel selection request for one of the plurality of video channels; **(column 7 line 62 to column 8 line 2)**

converting to a predetermined frequency, by one of a plurality of converters in the local service module, the one of the plurality of video channels corresponding to the channel selection request; **(Fig. 3: Modulating portion 13, converts the requested video channel to a predetermined frequency, column 8 lines 20-37.)**

combining the converted one of the plurality of video channels with at least one other video channel from the one or more multiplexed channel signals

into a multiplexed signal for transmission via the cabling. **(Fig. 3: Outputs from the modulating portions 13_x are multiplexed and transmitted via transmission line 20, column 8 lines 37-41.)**

However, Utsumi does not explicitly teach the channel change request is received via cabling.

In an analogous art, Mao, which discloses a system for transmitting channel change requests, clearly teaches transmitting a channel change request via cabling. **(Fig. 1: The STB 19 send a channel change request to BDT 12 via cabling (coaxial cable 17 and optical fiber 16), column 5 lines 55-57.)**

Because both Utsumi and Mao teach methods for transmitting a channel change request it would have been obvious to one with ordinary skill in the art, at the time the invention was made, to substitute one method for the other to achieve the predictable result of transmitting a channel change request.

Consider **claim 31**, Utsumi combined with Mao, as in claim 30, clearly teaches converting, to a second predetermined frequency using another one of the plurality of converters, the at least one other video channel from the one or more multiplexed channel signals. **(Each modulating portion 13_x modulates the signal to a different frequency for each subscriber, column 8 lines 37-46 Utsumi.)**

Consider **claim 32**, Utsumi combined with Mao, as in claim 30, clearly teaches filtering, for reception by a video displaying apparatus, at least one of the video channels within the multiplexed signal. **(The subscriber receiving device 31, receives the multiplexed signal and filters out the frequency, f_1 , for which it is assigned, column 8 lines 41-43 Utsumi.)**

Consider **claim 33**, Utsumi combined with Mao, as in claim 30, clearly teaches the channel selection request is received from a customer. **(column 7 line 62 to column 8 line 2 Utsumi)**

Consider **claim 34**, Utsumi combined with Mao, as in claim 30, clearly teaches the channel selection request identifies the customer. **(After receiving the channel change request from a subscriber the selected channel is modulated with a frequency assigned to that subscribed, therefore the channel change request must contain information identifying the subscriber, column 8 lines 20-46 Utsumi.)**

Consider **claim 35**, Utsumi combined with Mao, as in claim 30, clearly teaches demultiplexing the one or more multiplexed channel signals at the local service module. **(Fig. 3 Demultiplexing portion 11, column 7 lines 39-42 Utsumi)**

Consider **claim 38**, Utsumi combined with Mao, as in claim 30, clearly teaches the predetermined frequency is one of a plurality of predetermined frequencies; and the multiplexed signal is transmitted to a plurality of room interface units, each unit being associated with one of the plurality of predetermined frequencies. **(Each subscriber device 71 has a corresponding predetermined frequency. The multiplexed signal is transmitted to each subscriber device 71, wherein the device filters the frequency assigned to it, column 8 lines 34-51 Utsumi.)**

Consider **claim 39**, Utsumi combined with Mao, as in claim 30, clearly teaches the channel selection request is received from one of the plurality of room interface units. **(column 7 line 62 to column 8 line 2 Utsumi)**

Consider **claim 41**, Utsumi combined with Mao, as in claim 30, clearly teaches at least one of the plurality of converters is a programmable converter. **(Fig. 3 modulating portions 13₁ to 13_N, column 7 lines 45-51 and column 8 lines 29-37 Utsumi)**

Consider **claim 42**, Utsumi combined with Mao, as in claim 30, clearly teaches at least one of the plurality of converters is a frequency converter. **(Modulating portions 13₁ to 13_N convert the frequency of the signal, column 8 lines 34-37 Utsumi.)**

Consider **claim 43**, Utsumi combined with Mao, as in claim 30, clearly teaches another local service module converts a video channel from the plurality of video channels to the predetermined frequency. **(Fig. 10: The system can employ multiple selective distribution stations, Utsumi.)**

Consider **claim 44**, Utsumi combined with Mao, as in claim 30, clearly teaches the local service module utilizes frequencies for the plurality of converters in the local service module that are identical to frequencies utilized by a plurality of converters in the another local service module. **(The modulating portions 13₁ to 13_N in each of the selective distribution stations output frequencies in the range of f_1 to f_N , column 8 lines 11-15 Utsumi.)**

10. Claims **36 and 37** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Utsumi et al. (US Patent 5,729,281)** in view of **Mao (US Patent 6,728,965)**, as

applied to claim 30 above, and further in view of **Rakib (U.S. Patent Application**

Publication 2002/0019984).

Consider **claim 36**, Utsumi combined with Mao, as in claim 30, are relied upon as discussed above.

However, Utsumi combined with Mao, as in claim 30, do not explicitly teach at least one of the one or more multiplexed channel signals is received from a personal video recorder.

In an analogous art, Rakib, teaches a headend comprising a block of personal video recorders. (**Fig. 6, Hard Disk Array 289, see paragraphs 96-97**)

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the headend of Utsumi in view of Mao to incorporate a block of personal video recorders, as taught by Rakib, for the benefit of reduced consumer costs in the provision of TIVO like functions by utilizing hardware located at a headend in a cable distribution system.

Consider **claim 37**, Utsumi combined with Mao and Rakib, as in claim 36, clearly teaches the channel selection request includes at least one command to control the personal video recorder. (**Customers may invoke TIVO like functions via the hard disk array 289, [0097] Rakib.**)

11. Claim **40** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Utsumi et al. (US Patent 5,729,281)** in view of **Mao (US Patent 6,728,965)**, as applied to claim 30 above, and further in view of **Kitamura et al. (U.S. Patent 6,188,871)**, herein Kitamura.

Consider **claim 40**, Utsumi combined with Mao, as in claim 30, are relied upon as discussed above.

However, Utsumi combined with Mao, as in claim 30, do not explicitly teach at least one of the plurality of room interface units includes authorization information that authorizes display of the one of the plurality of channels and the method further comprises: obtaining authorization from the at least one of the plurality of room interface units to convert the one of the plurality of video channels.

In an analogous art, Kitamura, teaches at least one of the plurality of room interface units includes authorization information that authorizes display of the one of the plurality of channels and the method further comprises: obtaining authorization from the at least one of the plurality of room interface units to convert the one of the plurality of video channels. **(Fig. 7 Steps 1-4, column 8 lines 34-63)**

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the headend of Utsumi in view of Mao to incorporate a block of personal video recorders, as taught by Kitamura, for the benefit of increasing operator revenues through offering restricted access to premium content for increased subscription fees.

12. Claim **45** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Utsumi et al. (US Patent 5,729,281)** in view of **Mao (US Patent 6,728,965)**, as applied to claim 30 above, and further in view of **Chen et al. (US Patent 5,699,105)**, herein Chen, further in view of **Fellows, et al. ("DOCSIS Cable Modem Technology," IEEE Communications Magazine, March 2001, Vol. 39, Issue 3, pp. 202-209 (ISSN: 0163-6804))**, herein Fellows.

Consider **claim 45**, the teachings of Utsumi in view of Mao are relied upon as discussed above relative to claim 30. Utsumi in view of Mao fails to disclose the information passed back upstream to the service module also includes a DOCSIS return channel that is passed by the service module back to the headend and back to an internet service provider, as claimed.

However, Chen, in an analogous art, teaches passing information back upstream to a service module including data transmissions which are further passed to a headend for communication with an internet service provider for the benefit of providing access to internet based services over a cable network (col. 5, lines 38-41).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the upstream information of Utsumi in view of Mao to incorporate passing information upstream to the service module that is passed by the service module to

the headend and back to an internet service provider, as taught by Chen, for the benefit of providing access to internet based services over a cable network in a cable distribution network.

Although Chen teaches transmitting upstream data via a service module to a headend for communication with an internet service provider, Utsumi in view of Mao, further in view of Chen fails to specifically disclose the upstream information including a DOCSIS return channel, as claimed.

However, Fellows, in an analogous art, teaches transmitting upstream information comprising a DOCSIS return channel (page 204, 2nd col., paragraphs 2-3). Utilizing a DOCSIS return channel in upstream data communications in a cable network provides the typical and well-known benefit of complying with an established data transmission standard and allows for the use of standardized data transceiver devices (e.g., customer cable modems and headend cable modem termination system equipment).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the upstream information of Utsumi in view of Mao further in view of Chen to incorporate upstream information including a DOCSIS return channel, as taught by Fellows, for the benefit of complying with an established data transmission standard and facilitating the use of standardized data transceiver devices in a cable distribution system.

13. Claims **47 and 48** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Utsumi et al. (US Patent 5,729,281)** in view of **Mao (US Patent 6,728,965)**, as applied to claim 46 above, further in view of **Nikolich (US Patent Application Publication 2002/0073431)** and further in view of **Land (US Patent 6,848,116)**.

Consider **claim 47**, Utsumi in view of Mao fails to disclose the local service module further comprises: an input diplexer that separates a DOCSIS channel from the one or more multiplexed channel signals.

However, Nikolich, in an analogous art, teaches a television system including a DOCSIS channel (Fig. 1B, Modulators 108-1 -108-N; paragraphs 27-28, describing frequency conversion of DOCSIS downstream data signals). Including DOCSIS frequency converters at a cable headend provides the typical and well-

known benefit of transmitting downstream internet data to subscribers in compliance with an accepted and widely used data transmission standard.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Utsumi in view of Mao to include a DOCSIS communication channel, as taught by Nikolich, for the benefit of transmitting downstream internet data to subscribers in compliance with an accepted and widely utilized data transmission standard in a cable distribution system.

The combination of Utsumi, Mao and Nikolich fails to disclose an input diplexer that separates channels from the multiplexed signal.

In an analogous art, Land, which teaches a system for bi-directional communication in a cable system, clearly teaches an input diplexer that separates channels from the multiplexed signal. **(Fig. 9 Input diplexer 26, column 3 line 67 to column 4 line 6; column 4 lines 33-36)**

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Utsumi in view of Mao and Nikolich to include an input diplexer, as taught by Land, for the benefit of separating the input signal into separate frequency bands.

Consider **claim 48**, Utsumi in view of Mao, Nikolich and Land, as in claim 47, clearly teaches an output diplexer that separates a DOCSIS channel from the one or more multiplexed channel signals. **(Fig. 9 Output diplexer 19, column 3 line 67 to column 4 line 6; column 4 lines 33-36 Nikolich)**

14. Claim **56** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Utsumi et al. (US Patent 5,729,281)** in view of **Kitamura et al. (U.S. Patent 6,188,871)**, herein Kitamura, as applied to claim 55 above.

As for **claim 56**, the teachings of Utsumi are relied upon as discussed above. Utsumi fails to disclose an associated database in communication with the processor, the database storing customer viewing preferences.

However, Kitamura, in an analogous art, teaches a processor (Fig. 3, CPU 904) and database (Fig. 3, Database 111) in communication with a headend and service module, the processor controlling the operation of receiver/decoders and the database assisting the processor and storing

customer viewing preferences (col. 8, lines 4-9, col. 8, lines 34-51) for the benefit of enabling a subscriber to receive a desired CATV program through a simple receiver (see col. 1, line 65 - col. 2, line 7).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the processor of Utsumi to incorporate the processor and an associated database in communication with the headend and service module, and the database assisting the processor in this functionality and in storing customer viewing preferences, as taught by Kitamura, for the benefit of enabling a subscriber to receive a desired CATV program through a simple receiver in a cable distribution system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John R. Schnurr whose telephone number is (571) 270-1458. The examiner can normally be reached on Monday - Friday, 7:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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